

14. (New) The method of claim 11, wherein the magnetic material comprises permalloy.

15. (New) The method of claim 10, further comprising selecting the electrically conductive material to minimize the electrical resistance between the magnetic actuation element and the contact layer.

REMARKS

Claims 1-9 are pending. Claims 7-9 have been cancelled without prejudice. Claims 1 and 6 have been amended. Claims 10-15 have been added. No new matter has been added. Reconsideration and allowance of the above-referenced application are respectfully requested.

Claims 1-3 and 7-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Brailsford.

Claims 4-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Brailsford in view of Tanikoshi. Independent claim 1 has been amended to obviate the rejections with respect to claims 1-5.

Claim 1, as amended, recites a DC motor having microelectronic mechanical system (MEMS) relay with a magnetic actuation plate micro-machined on a substrate. Each relay is

connected electrically to at least one corresponding winding and to power. This DC motor design enables miniaturization of components, and hence leads to more compact and lightweight systems. The design provides increased range of uses and decreased costs associated with transporting and using these systems. Miniaturization and reliability improvements are particularly important in areas such as space exploration and satellite communications. The cost of launching equipment from the Earth's surface is directly related to the size and weight of the equipment. Even modest reductions in equipment size can produce large reductions in cost.

Brailsford fails to teach or suggest using MEMS relay with a magnetic actuation plate micro-machined on a substrate in a DC motor. Further, Tanikoshi does not disclose using MEMS relay in a DC motor. Therefore, independent claim 1, as well as claims 2-5, which depend from claim 1, should be allowable.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Brailsford in view of Posey. Claim 6 has been amended to obviate this rejection.

Claim 6, as amended, also recites a DC motor having a MEMS relay with a magnetic spring beam etched on a substrate. Each relay is connected electrically to at least one corresponding winding and to power.

Since Posey also fails to teach or suggest using a MEMS relay, the hypothetical combination of Brailsford and Posey cannot render this claim unpatentable. Therefore, claim 6 should be allowable.

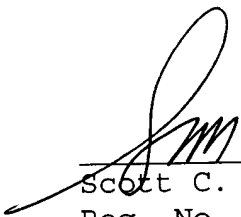
New claims 10-15 recite a method of fabricating a DC motor having MEMS relay. None of the above-cited references, alone or in combination, can render claims 10-15 obvious.

Therefore, in view of the above amendments and remarks, all of the pending claims, as well as newly-presented claims 10-15, should be in condition for allowance. A formal notice to that effect is respectfully solicited.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 12/30/99



Scott C. Harris
Reg. No. 32,030

SSL/nsg

Fish & Richardson P.C.
4225 Executive Square, Suite 1400
La Jolla, CA 92037
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

10012747.doc